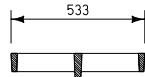
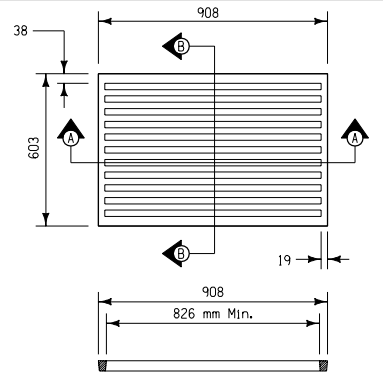


SECTION A-A

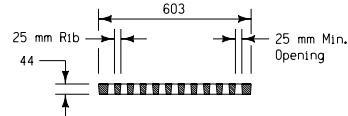


SECTION B-B

TYPE 2 GRATE
Minimum Mass = 95 kg

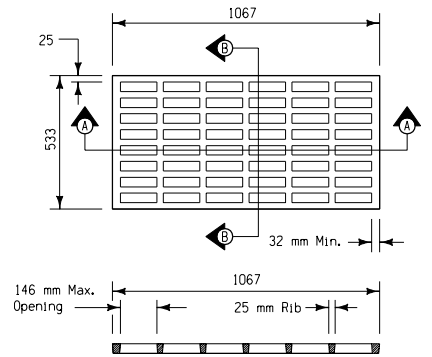


SECTION A-A

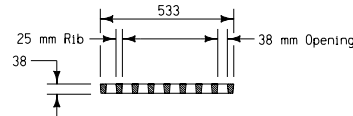


SECTION B-B

TYPE 7 GRATE
Minimum Mass = 79 kg



SECTION A-A



SECTION B-B

TYPE 8 GRATE
Minimum Mass = 68 kg

GENERAL NOTES:

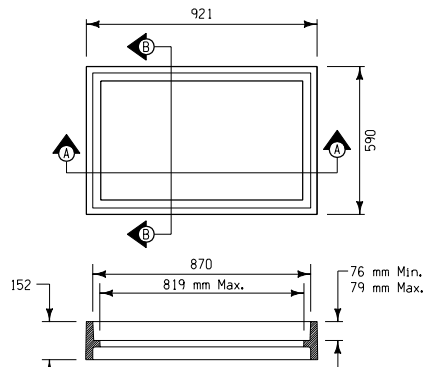
All castings shall be Class 30 or better gray iron castings complying with the Standard and Supplemental Specifications and shall be essentially as detailed hereon. The castings illustrated hereon are typical only. Alternate designs for similar situations may be submitted to the Engineer for approval. Minimum mass requirements will be met unless authorization is received for any such deviation. All castings subject to roadway traffic shall have a machine ground bearing surface to prevent rattling, and match-marked before delivery. The use of grinding pads is allowed as long as all dimensional requirements are met.

Finish of castings shall be smooth and free of defects as per the Standard and Supplemental Specifications. Painting of casting is not required; however, if used, paint shall be evenly applied and neither sticky nor brittle when dry.

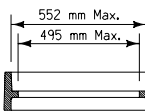
All component parts of casting shall fit smoothly together without forcing and the finished product shall have a completely satisfactory appearance.

An identifiable trade name or mark may be imprinted on castings by the casting foundry.

Unless specified otherwise as a part of detail plans, cast iron grates and frames described hereon shall not be paid for separately, but shall be included with and considered incidental to intakes or utility accesses.

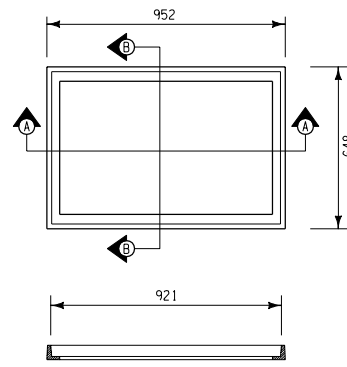


SECTION A-A

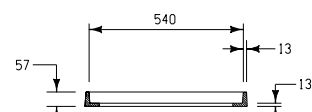


SECTION B-B

TYPE 2 FRAME
Minimum Mass = 91 kg

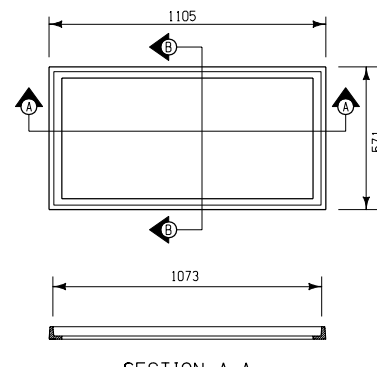


SECTION A-A

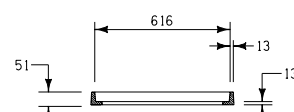


SECTION B-B

TYPE 7 FRAME
Minimum Mass = 27 kg




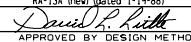
SECTION A-A



SECTION B-B

TYPE 8 FRAME
Minimum Mass = 27 kg

All dimensions given in millimeters unless noted.

METRIC VERSION	 Iowa Department of Transportation Project Development Division		
	STANDARD ROAD PLAN		RA-66B
	REVISION: Metric conversion of portions of Standard Road Plan RA-13A (new) (dated 1-19-88)		REVISION NO. New
	 11-30-95 APPROVED BY DESIGN METHODS ENGINEER		REVISION DATE 03-26-96
	INTAKE GRATES TYPES 2, 7, AND 8		